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# TECHNOLOGY OF CELLULOSE ETHERS

A THEORETICAL AND PRACTICAL TREATISE ON THE  
ORIGIN, HISTORY, CHEMISTRY, MANUFACTURE, TECH-  
NICAL APPLICATION AND ANALYSIS OF THE  
ETHERIFIED CELLULOSES AND CARBOHYDRATE  
CARBOXYLATE ETHERS (ESTERIFIED CEL-  
LULOSE ETHERS, ETHERIFIED ORG-  
ANIC CELLULOSE ESTERS)

*Including*

ALKYLCELLULOSES, ARYLCELLULOSES, ARALKYLCELLULOSES,  
AS METHYLCELLULOSE, ETHYLCELLULOSE, BENZYLCELLU-  
LOSE, WITH CELLULOSE FORMATE, CELLULOSE ACE-  
TATE, THEIR SOLVENTS AND PLASTIFIERS, AS  
APPLIED TO TECHNOLOGY, PHARMACY, MEDI-  
CINE, MICROSCOPY, PHOTOGRAPHY, DEN-  
TISTRY AND THE PEACEFUL ARTS

*By*

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ESTERS," "CELLULOSE ACETATE," "CHEMICAL PATENTS  
INDEX, UNITED STATES 1915-1924."

In Five Volumes

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VOLUME FIVE

INDICES OF PATENTS, NAMES AND SUBJECTS

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## INDEX OF PATENTS

Prepared by Mae T. Forbringer

NOTE—The patents are placed numerically under the respective countries arranged alphabetically, the Applications for patents in each country preceding an enumeration of the granted patents. Due to a vacillating policy of recording Austrian patents, it has, in some instances, been impossible to differentiate between the patents and patent applications. Therefore, the first section records the Applications, while the second section enumerates the (supposedly) patents, in which may be included Applications and Privileges. The English Patents follow the Applications, but up to 1854 in Great Britain, one system had a continuous numbering of patents, whereas another began with number one on Jan. 1 of each year. From 1855-1915, inclusive, patents began with number 1 on Jan. first of each year, while beginning with Jan. 1, 1916, to date, the patent numbers are consecutive, commencing with 100001. With French patents, the Additions succeed the original patent number instead of being recorded together under a separate heading, thereby permitting improvements on the original patents to be observed without additional search. The German Applications are first recorded alphabetically according to the first letter of the patentee's name, followed by the Patents granted.

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1493,2490	293052, 164,2594	295366, 2022
289523, 151,1875,2417	293067, 155,2417	295383, 668
289807, 676,2246	293269, 731,2028	295486, 798, 824
289853, 622	293316, 155, 200, 789,	295578, 158,1570,1571
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289959, 667	293350, 151,1379,2521	295582, 140, 173,2317,
289972, 632, 770	293391, 720,1945	2345,2348
289973, 667, 780	293416, 166,2109	295591, 747
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290177, 156,2241	293435, 244,1905,1970	295797, 699,2504
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2175,2178,2182	293480, 856	295942, 150,1797
290327, 844	293485, 151, 156,1850,	296011, 610
290377, 160,1385	2417	296017, 623
290523, 650	293717, 856	296047, 928,2259
290570, 622, 758	293724, 688	296172, 724, 835
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2181	1411,1413,1435,	296450, 135,2160,2543
290717, 1982	1492	296451, 135,2356
290720, 156,2262	293766, 155, 195,2220	296674, 135,2394,2406
290801, 162	293857, 602	296675, 135, 260, 851,
290833, 2101	293858, 134, 603,2359,	2024,2406
290989, 145,2570	2374	296759, 603,2330
290992, 715	294008, 147,1897	296796, 152,2417
291001, 797, 839	294037, 662	296974, 716, 830,1009,
291067, 696,2198	294137, 2239	1920

297186, 165,2318	299319, 668	301562, 669, 800
297364, 1008,2175	299326, 669	301564, 148,2262
297374, 676	299342, 605	301567, 600, 738,219
297463, 668	299343, 138, 180, 222,	2345
297607, 1041	2268,2307	301568, 600, 738,220
297676, 154,1797	299349, 137, 222	2345
297679, 723	299405, 604,2111	301655, 154,1858
297712, 134, 603,2359	299487, 2054	301734, 604
297749, 155,1670,2441	299511, 669	301755, 670
297766, 1711,1712,1741	299512, 669	301759, 162, 184,196
297766, 154, 190, 789,	299520, 664,2488,2491	2465
1664	299781, 136,2053,2394,	301878, 721
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297848, 135,2323	299782, 225,2406	302115, 210,2367
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297993, 162, 706,1921,	299849, 136,2322	302191, 150, 239,143
2542	299900, 655,1885,1986,	1484,1486
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298137, 730, 839	300157, 698,1925	302280, 670,2398
298178, 1179	300166, 160,2113	302321, 1824
298207, 603,2359	300246, 716	302361, 604,2345
298349, 983	300299, 718,2283	302363, 271, 604,234
298371, 630,2473	300357, 651,2544	302515, 661
298423, 690,2587	300418, 1916	302588, 201,1670
298605, 167,2415	300496, 2528,2529	302592, 609,2379
298608, 136, 177,1574,	300563, 664, 667, 669	302615, 150,2417
1968,2417	300611, 158,1568,2470	302616, 150
298609, 167,2415	300672, 721,2099	302667, 154,1798,252
298616, 136,2394,2398,	300824, 614	302698, 154,2398
2417	300894, 184, 229, 760,	302775, 137,1587,214'
298631, 2528	2176,2180,2317	2163,2307
298667, 605	300923, 669	302858, 165,2361
298699, 137, 750,2209,	300924, 153,2023	302961, 202,1976,197'
2284	300929, 138, 180, 222,	1978,1992
298705, 237,2488	2307	302993, 206
298819, 614, 755,1409	300942, 122,1654,1673,	303006, 791
298888, 707,2587	1677,1711	303056, 204,2113
298914, 1914,1972	300991, 669,2505	303098, 821
298933, 750	300998, 138, 216, 217,	303099, 821
298982, 685,2462	222, 852, 931,	303129, 184, 760,231'
298993, 138, 222,2209,	2088,2090,2111,	303134, 820, 821,140'
2268	2195	303135, 821
299042, 179, 603,2360	301017, 696, 886	303136, 822
299058, 136,2150,2158,	301036, 669, 978	303137, 822
2163	301088, 1233	303152, 172, 762,2411
299064, 1262	301133, 2559	303168, 154,2398
299065, 136, 175, 851,	301221, 736,2438	303169, 741,2394
1968	301335, 722,2197	303179, 831
299066, 175, 260,1968,	301415, 716	303286, 738,2345,235'
2394	301428, 136,2597,2598	303432, 823,1739
299067, 175, 225,1968,	301439, 165, 839,2525,	303482, 1245
2394	2533	303485, 838
299228, 134,1372	301490, 159	303491, 822
299234, 668	301497, 137,1808,2406	303493, 822,1681
	301549, 139,2273	303494, 835, 836

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303495, 835	305946, 194, 240, 301,	308170, 855
303516, 177,1568,1901	1440,1451,1591,	308173, 172, 178,2231
303560, 1968	1625	308210, 762
303631, 2488	305947, 1712,1730,1741	308230, 1808
303742, 829	305947, 190, 789,1664	308242, 2262
303772, 753, 770	305960, 1934,1946	308242, 196
303898, 177, 740,2569	305992, 740	308271, 170,2085
303915, 234,1577,1973,	306050, 839,2382	308272, 170,2086
2053	306052, 234,2080,2086	308273, 170,2086
303917, 234,2080,2086	306067, 749,2310	308284, 193, 208,1954,
303936, 1973	306105, 801	2084,2457
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304156, 753	306125, 212,1452	1408,1600,2151
304227, 761	306132, 783, 787,1708	308323, 226, 773,2151
304276, 203,2609	306140, 171,1579,1904	308348, 172, 741,1349,
304278, 758,1737,1740	306242, 194,2554	1406
304279, 759,1740	306397, 178, 740, 938,	308350, 2097
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304632, 184,2527	2307,2317	2554
304674, 216, 754, 852,	306637, 917,2301	308605, 185
931,2090	306693, 829,2462	308657, 183,1567,1943,
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304722, 212,1082,2598	306876, 673, 787,2155	308658, 183, 223, 261,
304739, 195, 196, 280,	306877, 757,2224	1943,1993,1994
305,2283,2295	306911, 779	308708, 2024
304759, 1809	306981, 180, 222, 750,	308731, 620, 824
304787, 199,2239	2268,2307	308733, 172, 742,2231
304804, 198,2246	307085, 1848	308757, 184, 760,2317
304806, 752	307289, 178, 741,1577,	308780, 787,2235
304855, 781	1999,2395,2407	308798, 175, 742
305096, 821	307290, 175, 178, 741,	308937, 802
305098, 819,2599	1577,1968,1999,	309017, 841,2053
305147, 770	2394,2408	309019, 1082
305148, 1802	307291, 175, 178, 741,	309053, 973
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305230, 199,2241	307361, 193,1573,2418	309153, 209,2350
305238, 819	307392, 822,2397	309158, 2127
305257, 179,2360	307399, 785	309194, 192, 283,2184,
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1712	307813, 195, 196,2262	2317
305674, 784	307868, 830	309558, 784, 785,2080
305694, 754,2585	308117, 836,2588	309577, 760
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309840, 803,1904	311741, 784,2354	313165, 2114
309876, 173, 750, 775, 2149	311763, 2114	313198, 804
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309913, 174,1577,1581, 2570	311779, 198	313234, 186,1693
309919, 1555	311784, 208, 820,1954, 2084	313235, 186,1693
309951, 174,2406	311790, 262, 773,1408, 2077	313273, 836,2587
309964, 245, 803,2206	311795, 198,1911,2324	313350, 805
310045, 742, 744,2171	311803, 2120	313404, 744, 850, 87 2164,2307
310046, 743,2089,2171	311877, 1852	313405, 173,1896,189
310062, 883,1988	312034, 2120	313408, 759, 886
310126, 664,2488,2490	312046, 829, 830	313410, 204,2403
310141, 803	312095, 226, 774, 958, 1408,1414,2151	313418, 769, 771
310181, 663, 664, 801, 1493,1941,2490	312096, 226, 774, 958, 2151	313450, 172,2237
310340, 235	312098, 773, 958,1406, 1408	313451, 171,2237
310434, 838	312137, 782	313535, 173,1895
310475, 188,2594	312173, 782	313538, 204,1412,153
310540, 183, 757,2504, 2526	312197, 246	313616, 998
310541, 183,2553	312203, 186, 852,2076, 2090,2092	313619, 808
310556, 825, 841	312232, 784	313651, 1693
310563, 817	312242, 738, 849	313864, 781, 782
310773, 749,2346	312262, 819,2392	313885, 172, 744,169 2121,2206
310779, 181, 218, 752, 2268	312280, 799	313892, 1912
310827, 180, 181, 222, 751,2268,2307	312309, 188,1848,2410	313966, 171,2451
310842, 169,2086	312469, 736,1936,2401	313970, 176, 744,216
310844, 810,2306	312506, 201	313971, 744,1702,230
310845, 176, 743,2196, 2352	312585, 769	313974, 839
310863, 753, 769	312586, 769	313980, 809,2208
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311196, 209,2533	312604, 188,1575,1809	314087, 757,1915
311287, 787,2125	312606, 174,2023	314132, 771
311306, 738,2355	312609, 174,2017	314145, 809
311368, 824	312655, 175, 219, 745, 746,2316,2317, 2346	314149, 837,2259
311391, 2120	312671, 784	314208, 172, 173, 21 749,2150,231 2351
311399, 2119	312688, 174, 743,2041	314306, 802,2440
311417, 792,2397	312716, 671	314396, 2041,2191,234 2352,2407
311433, 179, 222,2288	312733, 770	314396, 175, 745
311435, 179, 749, 798, 2299,2305	312915, 200,1720	314402, 2084
311467, 790,2301	312923, 2053	314404, 181,2195
311657, 172, 261, 743, 1994,2570	312992, 182,2509	314414, 182,2191
311664, 202	313072, 210,2189	314446, 745, 767,231'
311675, 180,2307	313091, 201,1352,1361, 1560	314447, 745,2307,231'
311695, 904	313133, 174,1555,1557, 1581,1895,1999, 2570	314451, 2262
311697, 187,1224,1413, 1449	313134, 173, 174, 248, 743,1563,1572, 2405	314501, 175, 745, 74' 2347
311700, 1889		314543, 807,2368
311707, 1020		314555, 754
311739, 1915		314571, 1977
		314651, 211,2300
		314810, 195,2577
		314867, 211, 835,197. 2462

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314913, 758, 857	316982, 171,2327	318464, 2109
314918, 187,1694,1700	316983, 173,2317	318467, 176, 747, 937,
314919, 187,1694,1700	316984, 175, 746,1968	2197
315005, 175, 745,2316,	316989, 265,2318	318468, 747, 934,2307
2317	317019, 298, 831	318567, 191,2329,2424
315227, 202,1568,2413	317025, 2372	318629, 177,2370
315275, 788, 790,1718	317026, 746,2372	318630, 266, 270, 747,
315278, 171,1433,1535	317046, 1233	1572,2117,2375,
315279, 746,1811,1943	317088, 838	2378
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2439	317097, 213, 217, 775,	2108,2375
315331, 751	2364,2365	318632, 177,2370
315385, 820,2620	317098, 213, 217, 775,	318633, 760, 806
315397, 782	1582,2365	318642, 748,2194
315428, 746,2140	317108, 2115	318643, 270, 748,2375
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315434, 2314	2241	2080,2103
315435, 831,2314	317125, 2124	318662, 771
315667, 788, 789,1719	317158, 816	318663, 771
315729, 221, 752,2088,	317330, 209,2405	318664, 771
2191	317333, 790,2319	318818, 820,2566
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315807, 173, 259,2041,	317368, 2114	318868, 1171
2570	317408, 188, 781,2099	318908, 834
315808, 173, 259,1577,	317443, 175,1570,2591	318960, 833
2041,2570	317454, 176, 746,2042,	318967, 788,1714
315832, 2207	2395	318970, 210, 834,2367
315835, 194,2575	317455, 765,1698,2328	318980, 203,1589,1854,
315840, 184,2529	317456, 266, 270,1573,	1875,2412
315902, 1172,1409	2375	318989, 2216
315905, 202,2278	317457, 176, 747,1968,	319001, 1708
316132, 2207	2104	319014, 786, 882,2158
316160, 187,1699,1724	317462, 830	319030, 772
316169, 828,2185,2193	317728, 804	319073, 179, 752,1374,
316276, 840	317824, 162, 184,1968,	1563,1838,2020
316284, 830	2464,2465	319285, 783, 979,1063,
316287, 830	317854, 781	1696
316301, 2529	317855, 781	319291, 254
316302, 191	317867, 754	319294, 791
316321, 202,1961	317871, 191,2551	319308, 181, 754,2253,
316322, 202,1961,2579	317907, 770	2254
316323, 202, 803,1961,	317909, 737	319354, 735,2308
1973,1976,2413	317911, 737	319371, 192,2573
316324, 203,1974	317936, 762, 874,2163	319390, 181, 222, 754,
316325, 203,1854,1973	317951, 856	2268
316521, 172, 746, 766,	317987, 201, 790,1617,	319420, 750
934,1698,2307	1717	319433, 803
316526, 179, 222, 752,	318070, 193,2466	319542, 781
2286	318088, 205,1414,1425,	319584, 907
316538, 1939,2216	1429,1538	319691, 177,1348,1363,
316574, 841	318151, 204,2103	1600,1675
316593, 823	318166, 841	319723, 2560
316594, 823	318211, 835,2121,2142	319736, 804
316638, 828,2184	318250, 209, 833,2377,	319978, 756,2391
316898, 802	2525	320027, 2310
316955, 833,2586,2589,	318255, 210,1665	320041, 234,1577
2594,2595	318366, 758,2331	320345, 2287

320363, 176, 222, 225, 226, 774,2090, 2195	322893, 829,2302	326462, 220,2375
320374, 225, 754,2589	322997, 1171	326471, 900,2121
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320492, 796,2604	323180, 852,2153	326579, 2034
320606, 748	323209, 220, 854	326649, 249,2404
320632, 221,2092,2191	323210, 219,2355	326764, 902
320649, 740,1999,2396	323221, 220,2372	326779, 902
320775, 749	323473, 869,2435	326780, 902
320842, 187, 865,1694	323500, 856, 857,1414	326781, 902
321034, 829,2301	323501, 217, 218,2157, 2183	326815, 234,2080,208
321157, 820,2585,2588	323515, 856, 857	326824, 1876,2424
321189, 2586	323521, 225,2210	326865, 238,1440,148 1605
321222, 231, 251, 839, 2530,2531,2533	323525, 235,1573,2419	326882, 843,2540
321241, 781	323548, 857	326952, 879,1717
321258, 1954	323671, 858,2588	327157, 225,1396
321401, 180, 222, 751, 2209,2286	323693, 904	327164, 882,2105
321575, 833,1739	323731, 246	327165, 232,1716
321648, 833,1687	323732, 246	327212, 898,2448
321651, 191,1357,1462, 2094	323785, 218,2157	327394, 881,2263
321762, 752,2090	323788, 220, 222, 853, 2208	327420, 235, 281,209 2096,2103,211
321977, 799,2589,2595	323790, 217, 225,2090, 2091,2132,2217	327423, 236,2096
322003, 914,1681	323792, 218, 222,2268	327429, 231,2471
322169, 763,2252	323846, 251,2132	327444, 886
322417, 775,2372	323869, 905,1701	327454, 2109
322432, 231, 251, 761, 839, 909,2530, 2531,2533	324025, 257,1573,2404	327635, 235
322454, 840, 845, 868	324061, 2112,2371	327671, 233,2096
322463, 180, 751	324315, 2006	327673, 283,2422
322464, 182,1366	324352, 859	327714, 245,1542
322466, 2053	324650, 218, 852,2347	327737, 233,2096
322537, 2053	324662, 225,2134	327740, 220, 932,212 2190
322538, 2053	324677, 254,2528	327860, 222
322539, 2053	324680, 857,2331	327949, 884,2588
322540, 200,2053,2441, 2565	324683, 219, 853,2344	327969, 846,2559
322541, 200,1885,2053, 2441	324898, 859,2586	328013, 2120
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322543, 200,1885,2441	324911, 886,2506	328247, 221, 222, 85 2193,2194
322551, 2595	325014, 237,2539	328259, 905,1701
322556, 2629	325034, 872,2158	328291, 881,2247
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322576, 2224	325209, 839	328312, 272, 854,158 2373,2374,237 2377
322730, 191,2094	325224, 865,1739	328336, 845,2532
322737, 181, 220, 222, 2452	325229, 881,2246	328572, 843
322768, 235,2160	325231, 865,1739	328588, 906,1728
	325233, 216, 932,2090	328636, 226,1364,209
	325512, 233,1625,1708	328657, 223,2452
	325822, 866,1741	328911, 216
	325823, 221, 854,2347	328919, 915,2586,259
	325857, 233,2095	328934, 223,2452
	325961, 1685	329049, 883,2259
	326229, 2595	
	326232, 852, 931	
	326461, 220,2076	

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Prepared by Lydia Englander

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A, 205 names, 302 citations thereon; B, 868 and 1527; C, 492 and 932; D, 395 and 1151; E, 119 and 318; F, 318 and 486; G, 333 and 488; H, 694 and 868; I, 187 and 691; J, 117 and 110; K, 372 and 528; L, 400 and 629; M, 529 and 637; N, 164 and 225; O, 106 and 119; P, 344 and 447; Q, 2 and 3; R, 364 and 381; S, 926 and 1211; T, 248 and 283; U, 32 and 39; V, 90 and 115; W, 412 and 497; X, 1 and 1; Y, 22 and 33; Z, 69 and 96.

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|--|---|
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# INDEX OF SUBJECTS

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Note: The following includes both an index of the chemicals and compounds referred to within these pages, but in addition an index of the subjects and the intermediate methods of treatment of materials as well. The 50,394 separate citations of 40,746 different subjects, are distributed alphabetically as follows: A, 3,639 subjects, 4,481 separate references thereto; B, 3,308, 4,232; C, 7,140, 9,538; D, 2,692, 3,211; E, 2,810, 3,773; F, 1,523, 1,983; G, 1,293, 1,512; H, 935, 1,049; I, 515, 588; J, 35, 43; K, 100, 99; L, 950, 1,099; M, 3,305, 3,932; N, 1,095, 1,305; O, 409, 500; P, 3,423, 3,731; Q, 71, 94; R, 561, 760; S, 2,532, 2,794; T, 2,873, 3,575; U, 161, 202; V, 348, 443; W, 351, 403; X, 260, 299; Y, 75, 224; Z, 343, 414.

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*p*-Bromaniline, amines solvent for, 2009.  
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*p*-Brombenzaldehyde, 1867, 1958.  
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*p*-Brombenzyl chloride, 1622.  
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*a*-Brombutyric acid, 1643.  
*a*-Bromisobutyric acid, 1722.  
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—, amines solvent for, 2009.  
—, cellulose ether inflammability reduced by, 182.  
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Bromcaprylic acid, mfr., 1740.  
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—, cellulose ester solvent, 1816.  
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Bromcrotonic acid, mfr., 1740.  
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—, cellulose ether inflammability reduced by, 182.  
—, fire-retardant, 1374.  
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- $\alpha$ -Brom-naphthalene, cellulose ether coagulated by, 133, 170, 2086, 2097.  
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*p*-Brom-nitrobenzene, amines solvent for, 2009.  
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—, cellulose butyrate dyed using, 750.  
—, cellulose formate dyed using, 750.  
—, cellulose propionate dyed using, 750.  
4-Brom-2'-nitro-diphenylamine, cellulose acetate dyed using, 750.  
—, cellulose butyrate dyed using, 750.  
—, cellulose ether dyed using, 2284, 2285.  
—, cellulose formate dyed using, 750.  
—, cellulose propionate dyed using, 750.  
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—, cellulose ether dyed using, 2284.  
—, cellulose formate dyed using, 750.  
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 *$\alpha$ -Brompentane, see Amyl bromide (n).*  
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*p*-Bromphenol, cellulose acetate inflammability reduced by, 618.  
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—, propionic anhydride made using, 771.  
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—, cellulose ether inflammability reduced by, 182.  
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- p*-Bromtoluene, amines solvent for, 2009.  
 —, film made using, 2510.  
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 —, stabilizer, 1564.  
*α*-1-Brom-2.3.4-triacetyl-*d*-glucose, 1024.  
 —, properties, 1024.  
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*Butanol, see Butyl alcohol.*

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*Butoxyl, see 1,3-Butylene glycol-monomethyl acetate.*

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—, —, cellulose acetate in, 693.

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*n*-Butyl abietate, mfr., 884.

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—, acetic acid concentrated using, 719.

—, acetic acid extracted by, 829, 1045.

—, acetic acid recovered using, 730.

—, benzylcellulose solvent, 1555, 1588.

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—, carbon tetrachloride and cellulose ether solvent, 99.

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—, cellulose acetate solvent, 699, 1819.

—, cellulose ether solvent, 1841, 2471.

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—, ethyl alcohol and cellulose ether solvent, 97.

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—, film made using, 2503, 2514.

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—, methyl alcohol and, cellulose ether solvent, 97.

—, methylbutylcellulose and, for lacquer mfr., 2426.

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—, plastic made using, 2579.

—, propyl alcohol and, cellulose ether solvent, 97.

—, rubber combined with, 2410.

—, starch ether solvent, 1483.

—, tricresyl phosphate and, as solvent, 1905.

—, viscosity cellulose esters in, 926.

—, waterproofing using, 2637.

*iso*Butyl acetate, 1870, 1918.

—, acetic acid recovered using, 730.

—, ethylcellulose solvent, 300.

—, flash point, 2060.

—, mfr., 593.

*n*-Butyl acetate, 1918, 2388.

—, benzaldehyde solvent with, 50.

—, butyl tartrate solvent with, 50.

—, cellulose acetate solvent, 813.

—, cellulose ether solvent, 50.

—, cyclohexanol solvent with, 50.

—, cyclohexanone solvent with, 50.

—, dibenzylamine solvent with, 51.

—, dimethylaniline solvent with, 51.

—, diphenyl methane solvent with, 51.

—, ethylbenzene solvent with, 51.

—, ethylene bromide solvent with, 50.

—, ethylene chloride solvent with, 51.

—, ethylene trichloride solvent with, 50.

—, ethyl iodide solvent with, 50.

—, flash point, 2060.

—, ethyl acetate solvent with, 50.

—, methyl acetone solvent with, 50.

—, methylene chloride solvent with, 50.

—, viscosity of, 1367.

*sec*-Butyl acetate, 1846, 1919, 2026.

—, benzaldehyde solvent with, 50.

—, butyl tartrate solvent with, 50.

—, cellulose ether solvent, 50.

—, cyclohexanol solvent with, 50.

—, cyclohexanone solvent with, 50.

—, dibenzylamine solvent with, 51.

- sec*-Butyl acetate, dimethylaniline solvent with, 51.  
—, diphenyl methane solvent with, 51.  
—, ethylbenzene solvent with, 51.  
—, ethylene bromide solvent with, 50.  
—, ethylene chloride solvent with, 51.  
—, ethylene trichloride solvent with, 50.  
—, ethyl iodide solvent with, 50.  
—, methyl acetate solvent with, 50.  
—, methyl acetone solvent with, 50.  
—, methylene chloride solvent with, 50.  
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*iso*Butyl acetoacetate, 1931, 1932.  
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Butyl acetyl naphthoate, cellulose acetate plastifier, 550.  
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—, camphor substitute, 2050.  
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—, camphor substitute, 2050.  
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—, amyl carbonate as solvent with, 54.  
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—, amyl propionate as solvent with, 53.  
—, aniline acetate as solvent with, 54.  
—, benzal bromide as solvent with, 54.  
—, benzal chloride as solvent with, 54.  
—, benzanilid as solvent with, 54.  
—, benzotribromide as solvent with, 54.  
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—, benzyl bromide as solvent with, 54.  
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—, butyl butyrate as solvent with, 54.  
—, butyl carbonate as solvent with, 54.  
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—, butyl propionate as solvent with, 53.  
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—, catechol diacetate as solvent with, 54.  
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—, cellulose acetate lacquer containing, 730.  
—, cellulose acetate plastifier, 930.  
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—, cellulose ether coagulated by, 133, 2097.  
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—, cellulose acetate precipitated by, 1043.  
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*n*-Butyl alcohol, 1885.  
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—, benzylethyl ether solvent with, 51.  
—, *n*-butylbenzyl ether solvent with, 52.  
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—, *n*-butyl-*o*-cresyl ether solvent with, 51.  
—, *n*-butylphenyl ether solvent with, 52.  
—, butyl tartrate solvent with, 50.  
—, *n*-butyraldehyde from, 685.  
—, cellulose ether solvent, 50.  
—, chlorbenzene solvent with, 51.  
—, cyclohexanol solvent with, 50.

- n*-Butyl alcohol, cyclohexanone solvent with, 50.  
—, diamyl ketone solvent with, 52.  
—, dibenzylamine solvent with, 51.  
—, dibutyl ketone solvent with, 52.  
—, diethyl ketone solvent with, 52.  
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—, dimethylaniline solvent with, 51.  
—, diphenyl ether solvent with, 51.  
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—, ethylbenzene solvent with, 51.  
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—, ethylene bromide solvent with, 50.  
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—, methyl acetate solvent with, 51.  
—, methyl acetone solvent with, 50.  
—, methyl amyl ketone solvent with, 52.  
—, methyl benzoate solvent with, 51.  
—, methylbutyl ketone solvent with, 52.  
—, methyl-*o*-cresyl ether solvent with, 50.  
—, methylene chloride solvent with, 50.  
—, methylethyl ketone solvent with, 52.  
—, methylpropyl ketone solvent with, 52.  
—, methyl salicylate solvent with, 51.  
—, monochlorobenzene solvent with, 51.  
—, pentachlorethane solvent with, 51.  
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—, phenol solvent with, 51.  
—, phenyl ethers solvent with, 51.  
—, phenylethylether solvent with, 51.  
—, phenylmethyl ether solvent with, 51.  
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*n*-Butyl alcohol, resorcinol diacetate solvent with, 51.  
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*sec*-Butyl alcohol, 1835, 1836.  
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—, benzaldehyde solvent with, 50.  
—, benzylethyl ether solvent with, 51.  
—, *n*-butylbenzyl ether solvent with, 52.  
—, *n*-butyl-*o*-cresyl ether solvent with, 51.  
—, *n*-butylphenyl ether solvent with, 52.  
—, butyl tartrate solvent with, 50.  
—, cellulose ether solvent, 50.  
—, chlorobenzene solvent with, 51.  
—, cyclohexanol solvent with, 50.  
—, cyclohexanone solvent with, 50.  
—, diamyl ketone solvent with, 52.  
—, dibenzylamine solvent with, 51.  
—, dibutyl ketone solvent with, 52.  
—, diethyl ketone solvent with, 52.  
—, dimethylaniline solvent with, 51.  
—, diphenyl ether solvent with, 51.  
—, diphenyl methane solvent with, 51.  
—, dipropyl ketone solvent with, 52.  
—, diisopropyl ketone solvent with, 52.  
—, ethylbenzene solvent with, 51.  
—, ethylbenzylamine solvent with, 51.  
—, ethylene bromide solvent with, 50.  
—, ethylene chloride solvent with, 51.  
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—, ethyl iodide solvent with, 50.  
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—, methyl acetate solvent with, 50.  
—, methyl acetone solvent with, 50.  
—, methyl amyl ketone solvent with, 52.  
—, methyl benzoate solvent with, 51.  
—, methylbutyl ketone solvent with, 52.  
—, methyl-*o*-cresyl ether solvent with, 52.  
—, methylene chloride solvent with, 50.  
—, methylethyl ketone solvent with, 52.

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—, monochlorobenzene solvent with, 51.  
—, pentachlorethane with, 51.  
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*n*-Butylamine, solubility organic compounds in, 2007.  
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